

By Patricia Benner

Nursing in acute-care settings has grown so complex that it is no longer possible to standardize, routinize, and delegate much of what the nurse does.

In the past, formalization of nursing care and interchangeability of nursing personnel were considered easy answers to nurse turnover. The discretionary responsibility of nursing care for patient welfare was ignored, and little attention was paid to providing incentives and rewards for long-term careers in clinical nursing in hospitals. This is no longer tenable.

Increased acuity levels of patients, decreased length of hospitalization, and the proliferation of health care technology and specialization have increased the need for highly experienced nurses. The complexity and responsibility of nursing practice today requires long-term and ongoing career development. This, in turn, requires an understanding of the differences between the experienced nurse and the novice.

The Dreyfus Model of Skill Acquisition offers a useful tool for doing this. This model was inductively derived by two University of California, Berkeley, professors—Stuart Dreyfus, a mathematician and systems analyst, and Hubert Dreyfus, a philosopher—from their study of chess players and pilots(1,2).

In my studies, I have found that the model can be generalized to nursing. It takes into account increments in skilled performance based upon experience as well as education. It also provides a basis for clinical knowledge development and career progression in clinical nursing.

Briefly, the Dreyfus model posits that, in the acquisition and development of a skill, one passes through five levels of proficiency:

- novice
- advanced beginner
- competent
- proficient
- expert

The levels reflect changes in two general aspects of skilled performance. One is a movement from reliance on abstract principles to the use of past, concrete experience as paradigms. The other is a change in the perception and understanding of a demand situation so that the situation is seen less as a compilation of equally relevant bits and more as a complete whole in which only certain parts are relevant(2).

To evaluate the practicality of applying the Dreyfus model to nursing and to clarify the characteristics of nurse performance at different stages of skill acquisition, interviews and participant observations were conducted with 51 experienced



nurse clinicians, 11 new graduate nurses, and 5 senior nursing students in six different hospitals—two private community hospitals, two community teaching hospitals, one university medical center, and one inner-city general teaching hospital. Much confirming and no disconfirming evidence was found for use of the Dreyfus Model of Skill Acquisition in clinical nursing practice(3,4).

Level I: Novice

Beginners have no experience with the situations in which they are expected to perform tasks. In order to give them entry to these situations, they are taught about them in terms of objective attributes. These attributes are features of the task that can be recognized without situational experience.

Common attributes accessible to the novice include weight, intake and output, temperature, blood pressure, pulse, and other such objectifiable, measurable parameters of the patient's condition.

Novice practitioners are also taught rules to guide action in respect to different attributes. The following is an example of such a context-free rule:

To determine fluid balance, check the patient's morning weights and daily intake and output for the past three days. Weight gain in addition to an intake that is consistently greater than 500 cc could indicate water retention; in that case, fluid restriction should be started until the cause of the imbalance can be determined.

The heart of the difficulty that the novice faces is the inability to use discretionary judgment. Since novices have no experience with the situation they face, they must use these context-free rules to guide their task performance. But following rules legislates against successful task performance because no rule can tell a novice which tasks are most relevant in a real situation or when an exception to the rule is in order.

Level II: Advanced Beginner

The advanced beginner is one who can demonstrate marginally acceptable performance. This person is one who has coped with enough real situations to note (or to have them pointed out by a mentor) the recurrent meaningful situational components, called aspects.

In the Dreyfus model, the term "aspects" has a very specific meaning. Unlike the measurable, context-free attributes of features that the inexperienced novice uses, aspects are overall, global characteristics that require prior experience in actual situations for recognition.

For example, assessing a pa-

tient's readiness to learn depends on experience with previous patients in similar situations and similar teaching-learning needs. An expert clinician describes her assessment of a patient's readiness to learn about his continent ileostomy this way:

Earlier, I thought he was feeling helpless about the operation he had just had. He looked as though he felt crummy—physically, sort of stressed-looking, nervous-looking. Furthermore, he was treating the wound physically very gingerly. He didn't need to be that gentle with it. But, on this morning, it was different, he began to ask questions.

An instructor or mentor can provide guidelines for recognizing such aspects as readiness to learn; for example, "Notice whether or not the patient asks questions about the surgery or the dressing change." "Observe whether or not the patient looks at or handles the wound." But the guidelines are dependent on knowing what these aspects sound like and look like in a patient care situation.

While aspects may be made explicit, they cannot be made completely objective. It makes a difference in the way that the patient asks about the surgery or the dressing change. You have to have some experience with prior situations before you can use the guidelines. Aspect recognition is dependent on prior experience.

"Novices and advanced beginners can take in little of the situation—it is too new, too strange."

PATRICIA BENNER, RN, MS, has been involved in studies to identify the competencies of new graduates for over 10 years. When this was prepared, Ms. Benner was director of the Achieving Methods of Intraprofessional Consensus, Assessment, and Evaluation (AMICAE) Project at the University of San Francisco. This article is based on material to be published by the National Commission on Nursing of the American Hospital Association in a monograph, *From Novice to Expert: Promoting Excellence and Career Development in Clinical Nursing Practice*. The study reported in the monograph was supported by a Department of Health and Human Services Division of Nursing grant.

The advanced beginner, or instructor of the advanced beginner, can formulate guidelines for actions in terms of attributes and aspects. These action guidelines integrate as many attributes and aspects as possible, but they tend to ignore the differential importance. In other words, they treat all attributes and aspects as equally important. The following comment about advanced beginners in an intensive care nursery illustrates this.

I give very detailed and explicit instructions to the new graduate: When you come in and first see the baby, take the vital signs and make the physical examination. Then, check the IV sites, check the standby ventilator and make sure that it works, and check the monitors and alarms. When I say this to new graduates, they do exactly what I tell them to do, no matter what else is going on.... They can't choose one to leave out. They can't choose which is more important.... They can't do for one baby the things that are most important, then go to the next baby and do the things that are most important and leave out the things that can be left until later.

Novices and advanced beginners can take in little of the situation—it is too new, too strange. Besides, they have to concentrate on remembering the rules they have been taught. As the expert clinician quoted above adds,

If I say, you have to do these eight things, they do those things. They don't stop if another baby is screaming its head off. When they do realize that the other child needs attention, they're like mules between two piles of hay.

Much time is spent by preceptors and new graduates on aspect recognition. For example, in making physical assessments, aspect recognition is an appropriate learning goal. The nurse will practice discriminating between breath sounds indicative of pulmonary edema and those indicative of pneumonia. But in practice areas, where the clinician has already attained competency, aspect recognition will probably be redundant; the competent clinician will focus on the more advanced clinical skill of judging the relative importance of different aspects of the situation.

The major implication for both preservice and inservice education is that the advanced beginner needs support in the clinical setting. Advanced beginners need help in setting priorities since they operate on general guidelines and are only beginning to perceive recurrent meaningful patterns in their clinical practice. Their patient care must be backed up by competent level nurses to ensure that important patient needs do not go unattended because the advanced beginner cannot yet sort out what is most important.

Level III: Competent

Competency, typified by the nurse who has been on the job two to three years, develops when the nurse begins to see his or her actions in terms of long-range goals or plans. The nurse is consciously aware of these plans, and the goal or plan dictates which attributes and aspects of the current and contemplated future situation are to be considered most important and which can be ignored. For the competent nurse, a plan establishes a perspective, and the plan is based on considerable conscious, abstract, analytic contemplation of the problem. A preceptor describes her own evolution to the stage of competent, planned nursing from her earlier stimulus-response level of nursing:

I had four patients. One needed colostomy teaching, the others needed a lot of other things. Instead of thinking before I went into the room, I got caught up.... Someone's IV would stop, and I'd work on that. Then I'd forget to give someone their meds, and so would have to rush around and do that. And then someone would feel nauseated and I'd try to make them feel better while they were sick. And then the colostomy bag would fall off when I wanted to

start teaching. And, all of a sudden the morning was gone, and no one had a bed bath.

Now I come out of report and I know I have a couple of things that I have to do. Before I go in the room, I write down the meds I'm supposed to give for that day, and then walk in there and make sure that everybody's IV is fine. . . . I know what I have to do, and I am much more organized.

Competence is evidenced by the fact that the nurse begins to see his or her actions in terms of long-range goals or plans. The competent nurse lacks the speed and flexibility of the nurse who has reached the proficient level, but the competency stage is characterized by a feeling of mastery and the ability to cope with and manage the many contingencies of clinical nursing. The competent nurse's conscious, deliberate planning helps achieve a level of efficiency and organization. Nurses at this stage can benefit from decision-making games and simulations that give them practice in planning and coordinating multiple, complex, patient care demands.

The competent level is supported and reinforced institutionally, and many nurses may stay at this level because it is perceived as the ideal by their supervisors. The standardization and routinization of procedures, geared to manage the high turnover in nursing, most often reflect the competent level of performance. Most inservice education is aimed at the competent level of achievement; few inservice offerings are aimed at the proficient or expert level of performance.

"Experience teaches the proficient nurse what typical events to expect in a given situation and how to modify plans in response to these events."

Level IV: Proficient

With continued practice, the competent performer moves to the proficient stage. Characteristically, the proficient performer perceives situations as wholes, rather than in terms of aspects, and performance is guided by maxims.

Experience teaches the proficient nurse what typical events to expect in a given situation and how to modify plans in response to these events. There is a web of perspectives, and as Dreyfus notes,

Except in unusual circumstances, the performer will be experiencing his current situation as similar to some brain-stored, experience-created, typical situation (complete with its saliences) due to recent past history of events. . . . Hence the person will experience his or her situation at all times through a perspective, but rather than consciously calculating this perspective or plan, it will simply present itself to him or her(5).

Because of the experience-based ability to recognize whole situations, the proficient nurse can now recognize when the expected normal picture does not present itself—that is, when the normal is absent. The holistic understanding of the proficient nurse improves his or her decision making. Decision making is now less labored since the nurse has a perspective about which of the many attributes and aspects present are the important ones.

Whereas the competent person does not yet have enough experience to recognize a situation in terms of an overall picture or in terms of which aspects are most salient and most important, the proficient performer now considers fewer options and hones in on an accurate region of the problem. Aspects stand out to the proficient nurse as being more or less important to the situation at hand.

Maxims are used to guide the proficient performer, but a deep understanding of the situation is required before a maxim can be used. Maxims reflect what would appear to the competent or novice performer as unintelligible nuances of the situation. They can mean one thing at one time and quite another at another time. But once one has a deep understanding of the situation, the maxim provides directions as to what is important to take into consideration. This is revealed in the experienced nurse clinicians's account of how she weans a patient from a respirator:

Well, you look at vital signs to see if there is anything significant there. But even here you need to do a little guessing. You have to decide if the patient is just anxious because he's so used to the machine breathing for him. And if he does get anxious, you don't really want to medicate him, because you're afraid he will quit breathing. But on the other hand, he may really need to calm down a bit. It just depends on the situation. . . . You have your groundwork from what you have done in the past, and you know when you are going to get into trouble.

Proficient performers are best taught by use of case studies where their ability to grasp the situation is solicited and taxed. Providing proficient performers with context-free principles and rules will leave them somewhat frustrated and will usually stimulate them to give examples of situations where, clearly, the principle or rule would be contradicted.

Level V: Expert

At the expert level, the performer no longer relies on an analytical principle (rule, guideline, maxim) to connect her/his understanding of the situation to an appropriate action. The expert nurse, with her/his enormous background of experience, has an intuitive grasp of the situation and zeros in on the accurate region of the problem without wasteful consideration of a large range of unfruitful possible problem situations.

It is very frustrating to try to capture verbal descriptions of expert performance because the expert operates from a deep understanding of the situation, much like the chess master who, when asked why he made a particularly masterful move, will just say, "Because it felt right. It looked good."

The problem experts have telling all they know is evident in the following excerpt from an interview with an expert psychiatric nurse clinician. She has worked in psychiatry for 15 years and is highly respected by both nurse and physician colleagues for her clinical judgment and ability.

When I say to a doctor, "The patient is psychotic," I don't always know how to legitimize that statement. But I am never wrong because I know psychosis from the inside out. And I feel that, and I know it, and I trust it.

This nurse went on to describe a specific situation in which she knew that a patient was being misdiagnosed as psychotic when the patient was extremely angry. The physician was convinced that the patient was psychotic and said, "We'll do an MMPI to see who's right." This nurse responded, "I am sure that I am right regardless of what the MMPI says." The results backed up the nurse's assessment, and, based on her assessment, this nurse began what was a very successful intervention for the patient.

By studying proficient and expert performance, it is possible to obtain a rich description of the kinds of goals and patient outcomes that are possible in excellent nursing practice. This knowledge of goals and possible outcomes can be useful in expanding the scope of practice of nurses who are less proficient. In fact, a vision of what is possible is one of the characteristics that separates competent performance from proficient and expert performance. Exemplars and descriptions of excellence from expert nurse clinicians can raise the sights of the competent nurse, and perhaps facilitate his or her movement to the proficient stage. By assisting the expert to describe clinical situations where his or her interventions made a difference, some of the knowledge embedded in the expert's practice becomes visible.

This is not to say that the expert never uses analytical tools. Highly skilled analytical ability is necessary for novel or new situations. Analytical tools are also necessary when the expert gets a wrong take or a wrong grasp of the situation and finds that events and behaviors are not occurring according to expectations. When alternative perspectives are not available to the experienced clinician, the only way out of the wrong grasp of the problem is analytical problem solving.

"A competent nurse and a proficient nurse will not approach or solve a clinical situation in the same way."

Describing Expert Practice

We have much to learn from the expert nurse clinicians, but to describe or document expert nurse performance, a new strategy for identifying and describing nursing competencies is needed. If, as the Dreyfus Model of Skill Acquisition posits, the expert nurse's performance is holistic rather than fractionated, procedural, and based upon incremental steps, then the strategy for describing expert nursing performance must be holistic as well.

Currently, the language used to talk about nursing practice is too simple, formal, and context-free to capture the essence and complexity of expert nursing. At best, formal models recognize and capture areas of performance typical of the novice, advanced-beginner, or competent nurse. But since most formal models focus on structure or process, the content and relational aspects of nursing practice in even the beginning levels go undescribed.

It is important to underline the claim of the Dreyfus model that there is a transformation, a qualitative leap, from the competent to proficient levels of performance. A competent nurse and a proficient nurse will not approach or solve a clinical situation in the same way. It is not that proficient nurses have internalized the rules and formulas learned during the earlier stages of skill acquisition; they are no longer using rules and formulas to guide their practice. They are now using past concrete experiences much like the researcher uses paradigms.

What can be described is what the expert intended to accomplish and what the outcomes were. Also, it is possible to get a description from the patient and it is possible to systematically observe and describe expert practice. But it is not possible to recapture from the expert in explicit, formal steps the mental processes or all the elements that go into his or her expert recognitional capacity in making rapid patient assessments. So, although you cannot recapture elemental steps in the process, you can observe and describe in narrative interpretive form the accomplishments and characteristics of expert nurse performance.

Such a narrative, interpretive approach to describe expert nurse performance is illustrated in the following example which describes the coaching function of nursing.

Illness, pain, disfigurement, death, and even birth are, by and large, segregated, isolated experiences. It makes little sense for the lay person to personally prepare in advance for the many possible illness experiences.

Nurses, in contrast, through their education and experience, develop and observe many ways to understand and cope with illness, as well as many ways of experiencing illness, suffering pain, death, and birth. Nurses offer avenues of understanding, increased control, acceptance, and even triumph in the midst of what, for the patient, is a foreign, uncharted experience.

Experience, in addition to formal education preparation, is required to develop this competency since it is impossible to learn ways of being and coping with an illness solely by concept or theorem. A deep understanding of the situation is required before one acquires a repertoire of ways of being and coping with a particular illness experience. Often, these ways of being and ways of coping are transmitted nonverbally by demonstration, by

attitudes, and by reactions as in the following example. A nurse clinician described an encounter with a young man close to her own age who was visiting his father who was dying. There was a rather sudden deterioration in the father, and the family was extremely distraught. The son stopped the nurse in the hall and asked how long his father would live. The nurse answered that she really didn't know, that it could be minutes, hours, days, or weeks. There was no way to tell. He then asked if there were other patients dying on the floor. The nurse responded, "Yes." Then, as she recounts the incident, there was a long pause, followed by a barrage of questions:

How could I work here? How can I go home and sleep at night? How could I do what I do?

No one had ever been so direct with such questions as these before, and their bluntness threw me off balance. But he was sincere and was waiting for my answer, and so I told him how I had resolved these same questions within myself. It was not quite a monologue, but for 10 plus minutes he listened intently as I described to him my feelings. I told him my philosophy about life and about dying and about nursing.

I told him how gradually I had settled into the medical floor instead of using it as a stepping stone to a surgical floor—which was my first intention. I told him how it was difficult, and how it was emotionally draining, and how it sometimes was difficult to sleep at night.

I told him how there was great satisfaction in helping a patient through the particular passage known as death and how I felt I was able to help the family also through the pain of that passage. I told him the gratification, the thing that kept me here, was in knowing that maybe somehow, I had made this particular rocky road a little smoother for those who had to travel it. With that, he hugged me, said thank you, and turned away nodding his head, with tears in his eyes. There were tears in my eyes too.

". . . experience is not the mere passage of time or longevity . . ."

In translating for the son how the culturally avoided had become understandable and approachable to her, the nurse widened this young man's perspective and acceptance. This is what is meant by the coaching function of nursing, nurses who have come to grips with the culturally avoided or uncharted and can open ways of being and ways of coping for the patient and the family.

I have collected many examples of this particular skilled practice and am impressed that in each case the nurse did not offer the patient precepts or platitudes that might sound like, "Even in the midst of great handicap and impossibility, I think it is possible to make the most of it." This would be an example of inflexible teaching by precept.

Nurses, in their practice, by the way they approach a wound or the way they talk about recovery from a surgery, offer ways of understanding and avenues of acceptance. Through the nurse's own ability to face and cope with the problem, such as a difficult, draining wound, the patient can come to sense that the problem is approachable and manageable.

Experience, as it is understood and used in the acquisition of expertise, has a particular definition that should be clarified. As it is described in this model, experience is not the mere passage of time or longevity; it is the refinement of preconceived notions and theory by encountering many actual practical situations that add nuances or shades of differences to theory(6,7).

Theory offers what can be made explicit and formalized, but clinical practice is always more complex and presents many more realities than can be captured by theory alone. Theory, however, guides clinicians and enables them to ask the right questions.

Theory and research are generated from the practical world, from the practices of the experts in a field. Only from the assumptions and expectations of the clinical practice of experts are questions generated for scientific testing and theory building.

Recognition, reward, and retention of the experienced nurse in positions of direct clinical practice—along with the documention and adequate description of their practice—are the first steps in improving the quality of patient care. The Dreyfus Model of Skill Acquisition, applied to nursing and combined with an interpretive approach to describing nursing practices, offers guidelines for career and for knowledge development in clinical nursing practice.

It also indicates the importance of career ladders within clinical nursing practice and adds to our understanding of the need for and acceptance of the emergence of clinicians and clinical specialists in the patient-care setting.

References

1. Dreyfus, H. L. *What Computers Can't Do: A Critique of Artificial Reason.* New York, Harper & Row, 1972. (Paperback edition, 1979)
2. Dreyfus, Stuart, and Dreyfus, Hubert. *A Five-Stage Model of the Mental Activities Involved in Directed Skill Acquisition.* (Supported by the U.S. Air Force, Office of Scientific Research (AFSC) under contract F49620-C-0063 with the University of California) Berkeley, February, 1980. (Unpublished study)
3. Benner, Patricia, and Benner, R. V. *The New Nurse's Work Entry: A Troubled Sponsorship.* New York, Tiresias Press, 1979.
4. Benner, P., and others. *From Novice to Expert: A Community View of Preparing for and Rewarding Excellence in Clinical Nursing Practice.* (AMICAE Project Grant # 7 D2ONU 29104) San Francisco, University of San Francisco, 1981. (Unpublished study)
5. Dreyfus, Stuart. *Formal Models vs. Human Situational Understanding: Inherent Limitations on the Modeling of Business Expertise.* (Supported by the U.S. Air Force, Office of Scientific Research (AFSC), under contract F49620-79-C-006x with the University of California) Berkeley, Feb. 1981, p. 19. (Unpublished report. Copies, for $5 each to cover the cost of duplicating and mailing, are available from Stuart Dreyfus, Director of Operations Research Center, Univ. of Calif., Berkeley, Calif. 94720).
6. Gadamer, H.G. *Truth and Method.* London, Sheet and Ward, 1970.
7. Benner, Patricia, and Wrubel, Judith. Clinical knowledge development: a neglected staff development and clinical function. (Submitted for publication to *Nurse Educ* 1981)